REMARKS

Claims 1-31 were originally filed. Claims 1-19 have been withdrawn from consideration without prejudice or disclaimer. Claims 20-31 were previously pending in this application. No claims have been cancelled. No claims have been amended. New claims 32-33 have been added. As a result claims 20-33 are pending for examination with claims 20 and 26 being independent claims. No new matter has been added. Support for the new claims can be found throughout the specification including, for example, the Example as well as Figure 4.

Rejections Under 35 U.S.C. § 102

Claims 20-25 have been rejected under 35 U.S.C. § 102(b) as being anticipated by the teaching of Crawford et al. in U.S. Patent No. 5,003,814 (Crawford et al.).

Applicant disagrees that the invention as recited in independent claim 20 is anticipated by the teaching of Crawford et al. This reference teaches a sampling process for use in controlling addition of a conditioning material to sludges. The process and apparatus controls the addition of the conditioning material by comparing the viscosity of unconditioned sludge to the viscosity of conditioned sludge. In doing so, the sludge is directed to a sample vessel 36 (FIG. 1) equipped with a sensor head 46 that measures the shear stress of the sludge. The difference between the corresponding viscosity measurements is used to generate a control signal that provides an indication of the amount of conditioning material to add. Significantly, the disclosed process and apparatus diverts the sludge stream for offline, non-continuous measurements.

Crawford et al. do not teach a method to treat wastewater comprising a step of continuously measuring a rheological property of the wastewater stream. As discussed in the specification, the present invention utilizes a sensor to continuously measure (instantaneously, rapidly or repeatedly) a rheological property of a treated wastewater stream to generate measurements (including, for example, online measurements) to allow continuously controlled addition of a treatment agent to the wastewater stream. Thus, independent claim 20 cannot be anticipated by the teaching of Crawford et al. because the reference fails to disclose each and every limitation recited therein.

Dependent claims 21-25 depend from independent claim 20. These claims further recite additional features of the invention and are therefore patentable for at least the same reason discussed above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(b).

Rejections Under 35 U.S.C. § 103

Claims 26-31 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the teaching of Crawford et al. in view of the teaching of Pickering et al. in U.S. Patent No. 5,902,487 (Pickering et al.), and the teaching of Bache et al. in a Water Resources publication (Bache et al.).

Applicant disagrees that claims 26-31 are unpatentable over the teaching of Crawford et al. in view of the teachings of Pickering et al. and Bache et al.

Preliminarily, there is no teaching, suggestion, or motivation to combine the teachings of Pickering et al. and/or Bache et al. with the teaching of Crawford et al. in the manner asserted. Therefore, there is no *prima facie* case of obviousness. Further, any *prima facie* case of obviousness is rebutted because the proposed combination would not result in the invention as claimed in independent claim 26, and because there would be no expectation of success that the proposed combination would be successful.

Pickering et al. teach a process and apparatus for dewatering a suspension by measuring a density of the suspension along with a flowrate of the suspension stream and calculating the amount of a conditioner to add to the suspension based on the measured flowrate and measured density. This reference teaches performing these measurements upstream of a dosing point 4 (FIG. 1) because the prior art techniques have been unsatisfactory. (Pickering et al., at col. 1, lines 27 et seq.) The reference further notes that the methods that have been proposed for monitoring a parameter have involved offline analysis, and that monitoring the performance of a process by analyzing the solids or liquids recovered from the process (i.e., after treatment or separation) is difficult. Thus, Pickering et al. teach that offline analysis, involving a side measurement or side stream measurement, such as that disclosed by Crawford et al., and that post-separation measurement techniques are unsatisfactory.

Clearly, there is no expectation that the proposed combination would be successful because the references teach away from each other. Crawford et al. seeks to control the addition of expensive conditioning material by offline measurements of viscosity. In contrast, Pickering et al. discourages the use of offline analysis, as well as control schemes based on monitoring the performance of dewatering unit operations, because such systems react slowly to changes in the suspension, resulting in considerable volume of suspension dewatered before any necessary changes have been undertaken. Thus, any *prima facie* case of obviousness is rebutted because the references teach away from each other.

Bache et al. teach that viscosity response of a sludge centrate is a function of interactions from contributions arising from turbidity and residual polymer in the centrate as well as solvent viscosity. Significantly, this reference does not teach, suggest, or provide any motivation to perform offline or online measurements of viscosity or even control the addition of a polymer based on viscosity of the liquid rich stream. Thus, there is no *prima facie* case of obviousness.

Moreover, as discussed above, Pickering et al. teach against post-treatment techniques, such as those employed by Bache et al., to characterize the nature of sludge centrate. Thus, the references teach away from each other. Further, even if the teachings could have been combined in the manner asserted, the resultant combination would provide a method of controlling addition of a treating agent to a wastewater stream, comprising performing non-continuous offline measurements of flowrate and density of conditioned and unconditioned wastewater samples before dewatering or separating the wastewater into a liquid rich stream and a solid rich stream. Thus, any *prima facie* case of obviousness is rebutted because the references teach away from each other and because the proposed combination would not result in the invention as recited in independent claim 26.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing Amendments and Remarks, this application is in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes that this

application is not in condition for allowance, Applicant respectfully requests that the Examiner call Applicant's representative at the telephone number listed below.

If this Response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant requests any necessary extension of time.

No fee is due. If there is any other fee occasioned by this Response, including an extension fee that is not covered by the enclosed check, please charge any deficiency to Deposit Account No. 50/0214.

Respectfully submitted,
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